UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,793	07/12/2001	Thomas Anschutz	BELL-0103/01023	1480

38952	7590	06/28/2005	

WOODCOCK WASHBURN LLP
ONE LIBERTY PLACE - 46TH FLOOR
PHILADELPHIA, PA 19103

EXAMINER
PHAM, BRENDA H

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/903,793	ANSCHUTZ, THOMAS
	Examiner	Art Unit	
	Brenda Pham	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 March 2005</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 July 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-29 have been examined.

2.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP

§ 706.07(a).   Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.   In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.   In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action. 2.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

4. Claims 1-8, 12-14, 18-24 are rejected under 35 U.S.C. 102(e) as being anticipated by VON HAMMERSTEIN et al (US 6,278,708 B1).

Claims 1 and 12, VON HAMMESTEIN et al discloses a method and network for transporting a data packet to afforded one of a plurality of service classes **(voice, data)**, comprising: a plurality of managed network element **(figure 6 shows a LOCAL FRAD 62 and REMOTE FRAD 64, also figure 10 shows a detailed of managed network element)**, each managed element **(FRAD 62, 64)** partitioned into a plurality of element instances **(Ingress packet steering logic 143, LMI processing logic 135, Fragmenting logic 139 and voice packetizer 141)**, each element instance **(LMI processing logic 135, Fragmenting logic 139 and voice packetizer 141)** in a given managed element to provide one of the service classes **(data packet, voice, etc.)**, wherein the element instances are connected to element instances that provide the same service class via permanent virtual circuits (see figure 5C and col.9, line 20-28); and a plurality of communication links **(see figure 6)** connecting the managed elements to each other, the communication links carrying the data packet between the managed elements.

Claims 2, 3 and 13, 14, VON HAMMESTEIN et al teach the method of claim 1 and 12, wherein the service classes comprise high, medium and low priority.

{The queue service engine 233 is used to enforce a priority scheme in which link status packets are given top priority, voice packets are given second priority and bursty data packets are given lowest priority (column 18, lines 1-11).}

Claim 4, VON HAMMESTEIN et al teach the method of claim 1, further comprising determining the service class of the packet at only one managed element in the network.

{The ingress packet steering logic 143 (see figure 5C) determining the service class (packet, voice, etc.,) and bundle them in SUB-MUX'D PVCS 58 for voice bundle and SUB-MUX'D PVCS 59 for BURSTY DATA BUNDLE (also see figure 5C).}

Claims 5 and 20, VON HAMMESTEIN et al teach the method of claim 4 and 19, wherein the one managed element comprises the first managed element to handle the data packet **(figure 6 shows a local FRAD 62, which is the first managed element to handle the data packet.)**

Claims 6 and 21, VON HAMMESTEIN et al further teach the method of claim 5 and 20, wherein the one managed element resides at the edge of the network **(figure 6, element 62, 64 are edge nodes).**

Claims 7 and 22, VON HAMMESTEIN et al further teach the method of claim 4 and 19, wherein the determining comprises examining a plurality of data packet field **(see figure 8).**

Claim 8, VON HAMMESTEIN et al teach the method of claim 7, wherein the fields comprises an indicator of the source or destination address **{To support sub-multiplexing of PVCs that carry bursty data, a loca FRAD receives outbound packet from a router inspects the destination DLCI in each packet, then modifies the address field of each packet according to the destination DLCI, (column 6, lines 63-67).}**

Claim 18, VON HAMMESTEIN et al teaches the network of claim 12, wherein the network comprises a service provider network **(network shows in figure 6 is a service provider network).**

Claim 19, VON HAMMESTEIN et al teaches the method of claim 12, wherein the one managed elements determines the service class to be afforded the data packet.

Claim 23, VON HAMMESTEIN et al teach the network of claim 22, wherein the fields comprise an indicator of what type of application originally generated the data packet.

{The destination DLCI is also referred to as a user DLCI because it usually corresponds a user station on a network (column 7, lines 2-4).}

Claim 24, VON HAMMESTEIN et al teach the network of claim 12, wherein each managed element **(intermediate packet switches (not shows) coupled within the FRN 12 which coupled to LOCAL FRAD 62, provide the data packets a high**

switching service across FRN network) for handling the data packet subsequent to

the determination of service class utilizes an element instance corresponding to the

element instance utilized by the managed element **(FRAD 62)** that forwarded the data

packet.

5.   Claims 1, 4, 7, 12, 15, 17 are rejected under 35 U.S.C. 102(e) as being

anticipated by CHUI (US 6,707,799 B1).

        Claims 1, 12, 15, CHUI discloses a network for transporting a data packet to be

afforded one of a plurality of service (non-voice and VoIP), comprising: a plurality of

managed network elements (Router 24, 26, 28, 30, 32 of figure 2), each managed

element partitioned into a plurality of element instances (see figure 3), each element

instance in a give managed element (see figure 3) engineered to provide one of the

service classes. **{Elements 74, 76 and 82 for handling non-voice data; element 78**

and 80 for handling real-time critical voice traffic, see also column 6, lines 1-18).};

and a plurality of communication links connecting the managed elements to each other,

the communication links carrying the data packet between the managed elements **(see**

figure 2).

        Claim 17, CHUI teaches the network of claim 12, wherein the managed elements

comprise routers **(see figure 2).**

Claim 4, CHUI teaches the method of claim 1, further comprising: determining

the service class of the data packet at only one managed element in the network **(see

figure 2).**

Claim 7, CHUI teaches the method of claim 4, wherein the determining

comprises examining a plurality of data packet fields **(see figure 4A).**

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

CHUI (US 6,707,799 B1) in view of CONNERY et al (US 5,937,169).

Claims 9 and 10, as explained in the rejection statement of claim 1, 4, 7 (parent

claims), CHUI discloses all claim limitations recited in parent claims. CHUI does not

teach wherein the fields comprise a port identifier and wherein the field comprises a

protocol identifier.

CONNERY et al, in the same field of endeavor, teach a TCP/IP header

comprises IP header with protocol identifier field and TCP header with source port and

destination port fields (see figure 4).

IP header and TCP header such as that show in figure 4 are standard data packet header fields in the TCP/IP protocol suite.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement port identifier and protocol identifier in TCP/IP packet header such as that show in CONNERY et al for transferring packet data through frame relay network using TCP/IP protocol.

8.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over CHUI (US 6,707,799 B1) in view of BERL et al (US 5,991,302).

Claim 11, as explained in the rejection statement of claim 1, 4, 7 (parent claims), CHUI discloses all claim limitations recited in parent claims. CHUI does not teach wherein the field comprises a precedence indicator.

BERL et al, in the same field of endeavor, teach this limitation, (see column 10, lines 16-50).

{BERL et al teach according to column 10, line 20-50, that higher priority packet are transferred through the core IP backbone network where priority is preserved at intermediate queuing points of routers on the basis of the value of the precedence bits in the IP header. Significantly, packet of the higher priority TCP session may be delivered to the destination node 650 before packet of the lower priority TCP sessions even though the lower priority packets were sent first by node 600. These subsequently-transmitted lower-priority packets may be

"queued-up" at the intermediate routers 690 of IP network 605 and transmitted

when appropriate. (column 10, lines 20-45)}

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement a precedence indicator in packet header, such as that taught by BERL et al, in CHUI to preserve the priority and order of the packets across the network.

9.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over CHUI (US 6,707,799 B1) in view of McConnell et al (US 6,108,307).

Claim 16, as explained in the rejection statement of claim 12 (parent claim), CHUI discloses all claim limitations recited in parent claim. CHUI does not teach wherein the service classes comprise best efforts priority.

McConnell et al, in the same field of endeavor, teach this limitation.

{McConnell et al teach that the priority levels may be arbitrarily assigned

from low to high, or may be predetermined to reflect or may to quality of service

parameters associated with a backbone network. For instance, the queues 50,

52,54, 56 may respectively represent high priority, medium priority, low priority

and best effort priority levels, respectively.   The high priority level will be

associated with Frame Relay connections whose service class will only be

permitted to degrade last if congestion occurs.   The best effort priority level

pertains to Frame Relay connections whose service class will be permitted to

degrade first if network congestion occurs.}

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the best effort priority, such as that taught by McConnell et al to help reduce traffic congestion in higher priority class.

10.   Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over McConnell et al (US 6,108,307) further in view of von Hammerstein et al (US 6,278,708 B1).

Claims 25-29, McConnell et al disclose a managed network element for handling a data packet, the data packet to be afforded one of a plurality of service classes (priority levels), comprising the element resources, the element resources being partitioned into a plurality of element instances, each element instance being engineered to provide one of the service classes, the element resources comprises a memory (48), a processor in communication with the memory (48), a forwarding table (47) stored in the memory (48).

Although Mc Connell et al does not teach the element resources comprises an application specific integrated circuit (ASIC)/programmable gate arrary/reprogrammable gate array, it is well known that a general-purpose computer may used to implement the method for handling a data packet, such as that taught by McConnell, wherein the computer housing houses a motherboard which contains a CPU (central processing unit), memory such as DRAM (dynamic random access memory), ROM (read-only memory), EPROM (erasable programmable read-only memory), EEPROM (electrically erasable programmable read-only memory), SRAM (static random access memory),

SDRAM (synchronous dynamic random access memory), and Flash RAM (random access memory), and other optical special purpose logic devices such as ASICs (application-specific integrated circuits) or configurable logic device such as GAL (generic array logic) and reprogrammable FPGAs (field programmable gate arrays).

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement an application specific integrated circuit (ASIC) or programmable gate array or reprogrammable gate array, in McConnel et al.

McConnell et al further fails to teach wherein the element instances are connected to each other via permanent virtual circuit. The element instances are connected to each other via permanent virtual circuit is well known in the art and is taught by Von Hammerstein et al, (see figure 5C).

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to modify the network of McConnell et al by defined a PVC so that it requires no setup operation before data is sent and no disconnect operation after data is sent.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.
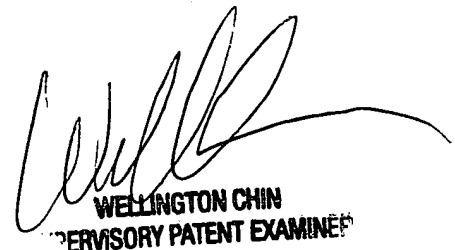
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

June 16, 2005
Brenda Pham

Brenda H. Pham

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER